Missouri
Department of
Natural Resources

The following comments were received on the proposed rule 10 CSR 10-5.381 On-Board Diagnostics Motor Vehicle Emissions Inspection.

Comments via email from by Greg and Barbara Kinder, owners of Autotech Auto Center on December 13, 2006. Mr. Kinder is an ASE Certified Master Technician and a Missouri Recognized Repair Technician.

I am writing in response to 10 CSR 10-5.381. These are the items that I wish to comment on:

Subsection (2)(U): An emissions inspection is currently good for 30 days, it should stay at the 30 day mark, 90 days (3 months) is too long of a time for the repair facility to have to keep these records on hand. Also, the re inspection time for safety inspections is only 20 working days (1 month) and the two tests should run concurrently.

Paragraph (3)(D)3.: There is a sticker required for passed vehicles, the fee should be handled the same way as for the safety inspection stickers. The emissions testing facility should purchase the stickers before they are used. Requiring weekly remittance and record keeping is too excessive for small businesses.

Subparagraph (3)(F)4.B.: The fee of $100.00 per stations is totally unfair. The test center is already going to perform the tests at a less than normal shop rate, provide the staff, facility, equipment, training, certification, etc., and to ask us to pay for the privilege of underwriting the states program is not fair.

If you check your records, just a few years ago, the small business shop owner was asked to purchase special equipment with the guarantee that if the program ended, the State of Missouri would step up and buy out the equipment, however, when the program ended, there were never any funds set aside to back up this promise, and now you are asking us to underwrite this program again.

Subparagraph (3)(F)4.D.: This again goes back to the fact that this is not fair to the emissions test center. The State and the Department of Revenue are already asking us to purchase special equipment, make our staff and facilities available at a substantially discounted rate and then pay $100.00 every year, this is not fair, and unless the shop's license is revoked or suspended by the department or the MSHP, the license should be self renewing with just updated information provided, no annual fee.

Subparagraph (3)(F)5.J.: This is requiring the shop owner to take on another operating expense if they do not have high speed internet access. It is unreasonable to have these records transferred immediately, these records could be easily downloaded 1 time a day and this would still be MUCH FASTER than the records are currently available at this time.

Paragraph (3)(H)1.: This requirement states that if there are any recalls for a vehicle issued after July 1, 1995, the shop is required to make the client aware of this. You should be aware that this information is not always released to the aftermarket repair industry in a timely basis and

requires another cost for the shop to absorb in obtaining this info, or spending a lot of time searching the Internet for every test vehicle.

Paragraphs (3)(L)1. to (3)(L)3.: The remote testing program should no longer be required due the fact that there will now be many test stations, and not just 8-10 stations. Also, since the State and the Department of Revenue are asking the small shop owner to bear the majority of the cost, we should be allowed to test all of the vehicles that are due for testing to help offset the costs.

Also, an integral part of the emissions test, is the pressurized gas cap testing procedure, if the remote testing is allowed to go on, the vehicle owner should still have to come to a station, pay the fee, and have the gas cap tested to make the emission testing fair and equitable to all.

Paragraph (3)(M): This requirement should be changed to allow for daily downloading of the inspection records. The extra costs for immediate transfer of data is unnecessary.

Paragraphs (4)(C)1. to (4)(C)4.: This requires the inspection station to provide of a list of 10 repair facilities and related info, who is to gather and maintain this info? Is the issuing shop allowed to pick and choose who they refer?

And what is specifically being referred to in paragraph 3.? It states, "Other information as required by the contract between the department and the contractor; and", if this is not referring to anything specific, it should be deleted, if it is referring to something specific, it needs to be spelled out.

Comments via email from Judith Zwicker, PhD, on December 20, 2006. Ms. Zwicker is Vice President of Remote Sensing Air, Inc.

I would like to thank you for the opportunity to comment on the Regulatory Impact Report for Proposed New Rule 10 CSR 10-5.381 relating to the proposed decentralized vehicle emissions testing program. I have been working as third party quality assurance oversight for the RapidScreen program portion of the Gateway Clean Air Program since October 1999. I am responding to this as a private citizen of University City, Missouri since 1969. I am employed by Remote Sensing Air, Inc. I have seen the air quality in the St. Louis area improve over the years with the programs implemented by the MDNR – Stage I & Stage II vapor recovery and the centralized IM Program. I was around for the previous decentralized IM Program and saw how poorly it worked.

General comments – It would have been useful to have had dates on the documents so that the time for comments could have been estimated.

Below are comments by section of the report. Comments on the DRAFT rule will follow in a separate document.

1. Describe the environmental conditions or standards being prescribed.

There is no mention in this section about the "contractor" mentioned heavily in the DRAFT rule. From the number of times that the "contractor" is mentioned and the types of duties, the "contractor" will play a very important role. The implication of this section is that the program will be run by local repair shops, but there are also other very important tasks that must be attended to if the program is to work. Is the "contractor" likely to be local?

It is good that diesel vehicles will finally be tested. There was really no good reason for them not to be tested by the IM240 and/or remote sensing in the past.

2. A report on the peer-reviewed scientific data used to commence the rulemaking process.

   This section does not make clear that there were no truly open sessions for input from the general public during the I/M Summit. Also, there is no mention that comments received on the Draft White Paper have never been addressed or made public as was stated in the White Paper and by Mr. Haskins Hobson who prepared the Draft White Paper. I submitted comments on December 15, 2005 on the October 26, 2005 Draft White Paper. The Draft White Paper has never been finalized with the inclusion of my comments or those of others, even those within the Department of Natural Resources who did not agree with all of the findings of the White Paper – specifically that it would be a good idea not to test 1995 and older vehicles. There was not the consensus implied by this section. Also, there is no mention of a very thorough document put out by the East-West Gateway Council of Governments in October of 2004 (FINAL DRAFT REPORT ON MISSOURI INSPECTION AND MAINTENANCE PROGRAM I/M Work Group of the Air Quality Advisory Committee East West Gateway Council of Governments, October 27, 2004) that showed a very different emphasis by vehicle owners on what was important to them as well as input from a large number of other people.

3. A description of the persons who will most likely be affected by the proposed rule, including persons that will bear the costs of the proposed rule and persons that will benefit from the proposed rule.

   In addition to those stated, the employees and suppliers of the current contractor for the centralized program will be adversely affected. These are in majority local citizens and small businesses who pay state and local taxes and buy goods at local retail outlets.

   Those people who will no longer need to have the vehicles tested will also be affected. There will be the "positive" side of convenience and the negative side of higher concentrations of vehicle emissions in their vehicles and neighborhoods. Since the vehicles that will not need to be tested are older vehicles and these have higher concentrations in the poorer areas, these areas will be more affected by the higher pollution levels.

   The general public in the St. Louis non-attainment area, especially those near interstate highways, will also be negatively impacted by the higher emissions.

   The owners and operators of the small business who will need to become part of the program will lose revenues from the loss of repairs to 1981 to 1995 vehicles that would have been

repaired under the current program. These owners and operators will need to pay for training and equipment and possibly lose repair revenues that are generally higher than test revenues.

4. A description of the environmental and economic costs and benefits of the proposed rule.

I assume that this is supposed to mean the economic costs and benefits over that which it is replacing. If this is the case, then the first paragraph in this section is misleading. Fewer vehicles will be tested and repaired. Those that will not be tested and repaired are the ones that produce the most emissions. Therefore repairs on these vehicles would result in the greatest emissions reductions. So an environmental cost of the proposed program is the increase in emissions (estimated later in the document at 5 tons/day of VOC and NOx for the first two years and 3 tons/day of VOC and NOx for the next four years). This seems like a significant cost to me. This section does not even address the issues of increased air toxics related to these same emissions from the unrepaired vehicles. These environmental costs may create another environmental cost by leading to ozone exceedances in the area that need to be addressed by additional controls on other sources.

Convenience seems to be a very important part of the decision to change from the previous program to the proposed program. It is not made clear in this section that the wait times for getting the vehicle tested at one of the new decentralized stations is allowed to be 2 hours unless other vehicles are being tested. The only additional convenience would be if the decentralized test station also does the safety test and both can be done while the car is left for the day or at least a few hours and not all facilities will perform both safety and emissions testing. Since repair facilities prefer repairs to testing, motorists will now have to call ahead and make an appointment as opposed to driving through an emissions station at their convenience. There is no mention that the very convenient and well liked RapidScreen program will no longer allow vehicle owners who maintain their vehicles to obtain an exemption from testing altogether. The program has been very successful as a convenience tool and in ensuring that emissions are not increased. Over 100,000 owners of vehicles with model year 1996-2003 took advantage of this program in 2005. These people will lose this convenience and have to deal with OBD connectivity problems and failures that are not related to emissions problems. The discussion of benefits to the vehicle owner for maintaining and repairing vehicles are the same for the current program except the vehicle owners with vehicles of model year 1981 to 1995 also get these benefits under the current program but will not under the proposed program. The ground level ozone is reduced to a greater extent with the current program than it would be with the proposed program.

The financial impact of the proposed program is very vague. There are many aspects of the cost of running the program that are not accounted for. It is obvious that part of the problem is that many numbers cannot be determined a priori. However, the impact on the owner of vehicles 1996 and newer is exactly the same as for the current program. Owners of vehicles 1981 to 1995 will not have to pay the cost of $24 every two years (or $1/month) which is really very low for getting anything so beneficial as reducing the emissions of VOC and NOx by 5 tons/day each. Of course the owners of the 1996 and newer vehicles will need to pay for repairs related to their OBD systems even when the repair does not affect the emissions and the owners of the 1995 and older vehicles will not. For the current program there are no

unknowns to the cost and benefit so far as the financial part of the testing and running of the program is concerned. All expenses are covered by the $24 fee that includes the $2.50 per test for the MDNR (I understand that this revenue pays for the MDNR oversight of the program) as well as all testing, training, quality assurance, the RapidScreen Program, reporting, and so forth. There are no additional costs to the public. With the new program, it is unclear how much the test stations will get. They charge $24 and must give $2.50 to the MDNR but there is the "contractor" who will sell or lease equipment to the test stations. Presumably the contractor will also collect and perform quality assurance and quality control on the all of the data collected from all of the stations. They will also provide the stations with forms and stickers, collect information from the DOR, send information to the DOR, making sure that all data are available in real time to the MDNR and MSHP and run a remote sensing collection program. Where does this money come from to pay the "contractor" – the $21.50 that the inspection station has left after paying the MDNR its $2.50 or out of the MDNR $2.50 or out of general revenues?

The next two paragraphs discuss the issues pretty well, but, as stated, rather vaguely since there does not seem to be any concrete information about how much many things will cost and how many test facilities there are likely to be.

5. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenue.

   Most of the discussion is full of the word "unknown" in relation to costs and revenues and leaves the feeling that the costs are likely to exceed the revenues. The current program provides a net revenue benefit to the MDNR (and thus, the state). Some of the costs discussed such as changes related to DOR improvements would have been beneficial to the current program if it were to continue, but the additional costs for checking up on the much larger number of test stations is just added cost for no real benefit! There is a net loss to the state and at least some loss to the repair community in losing the repair of 1981 to 1995 vehicles.

6. A comparison of the probable costs and benefits of the proposed rule to the probable costs and benefits of inaction, which includes both economic and environmental costs and benefits.

   No comment.

7. A determination of whether there are less costly or less intrusive methods for achieving the proposed rule.

   Keeping the current centralized set up would be less costly since the program is in place and operating so there would be no start up costs. Also, the present contractor should be able to do the testing for less money (less than $24/test less the $2.50 to the state for emissions or less than $24+$12 -$2.50 -$1 – cost for safety sticker for emissions and safety) since they already own and operate most of the equipment necessary for the testing as proposed. There would be much lower costs for oversight (as stated in section 5). Keeping the current centralized stations for OBD only testing would be no more intrusive than the proposed rule

– only OBD. Of course the high emitting vehicles (1981-1995) would still not be tested which would negatively impact the environment.

An alternative procedure that would be less costly and less intrusive would be to have an all remote sensing program that would require all vehicles to pass by a remote sensing van and to have emissions less than the clean screen level to get a registration renewal. This type of program has been proposed in Colorado and a phase-in program has been adopted by the legislature. This type of program would allow testing of all vehicles except heavy duty trucks and buses that do not have the exhaust near street level. These types of vehicles could also be tested at special remote sensing set ups. The technology can determine the emissions from all fuel types and most vehicle types. Vehicles that passed the emissions test at the time of renewal and are emitting above a certain level could be notified that there vehicle is in need of repair out of cycle. This type of notification can be beneficial to the vehicle owner by letting them know of a problem before it becomes more expensive to fix. This would also reduce emissions by catching high emitting vehicles earlier than the 2-year interval.

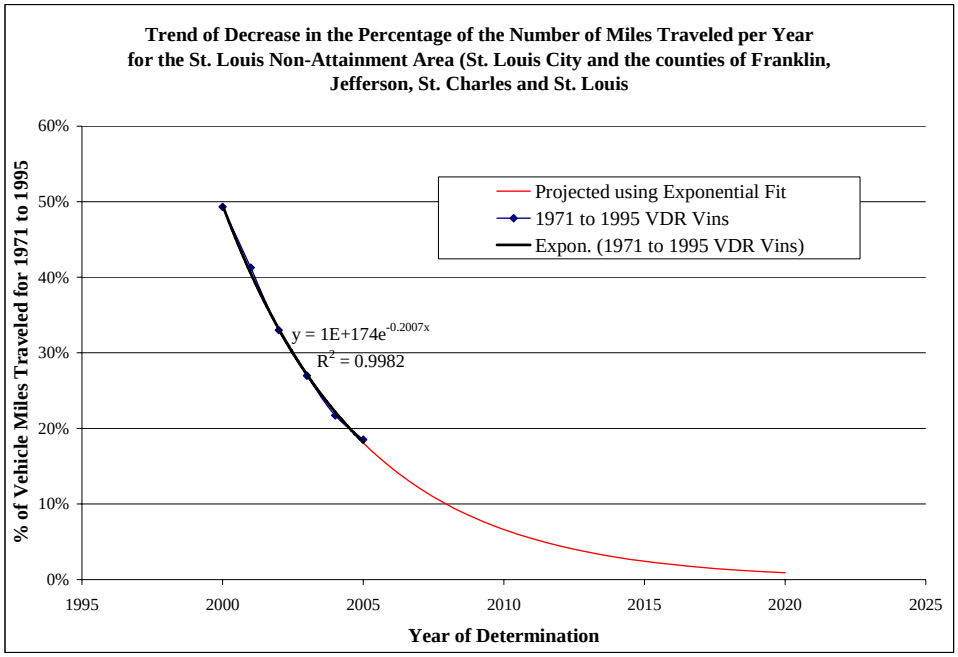
8. A description of any alternative method for achieving the purpose of the proposed rule that were seriously considered by the department and the reasons why they were rejected in favor of the proposed rule.

   See 7.

9. An analysis of both short-term and long-term consequences of the proposed rule.

   The short term impacts seem about right. These increases are directly bad for the health of the local residents and most likely have higher impact on those living near highways. The increases may also lead to ozone exceedances that might push St. Louis into a higher non-attainment level. Increases of 5 tons/day for two years are certainly significant.

   Yes, in the long term, the proposed rule will decrease emissions to the levels that they would be decreased by the current program – when nearly all of the 1995 and older vehicles are replaced by 1996 and newer vehicles. The current registration data for light duty passenger vehicles and trucks (not diesel) in the St. Louis non-attainment area indicate that in 2005 the 1995 and older vehicles made up nearly 30% of the fleet. Using information from EPA on vehicle miles traveled and remote sensing data, these older vehicles made up about 20% of the vehicle miles traveled and about 58% of the VOC emissions and 53% of the NOx emissions. The remote sensing data (that correlate with the EPA vehicle miles traveled data combined with the registration data) from 2000 through 2005 and then extrapolated (see Figure below) indicate that the time that the older vehicles will be replaced by newer will be approached asymptotically and reach <2% by about 2016. This trend will probably be impacted by the proposed rule so that the removal of older vehicles will be slower than expected since owners of vehicle with model years 1990 to 1995 are less likely to move up to late 1990's or early 2000 vehicles that will need OBD testing and will have problems with OBD testing.



One of the problems with going over to all OBD testing is that there is no way to directly evaluate the emissions reductions due to the program as there is with the tailpipe tests or remote sensing testing that actually measure emissions before and after repair.

10. An explanation of the risks to human health, public welfare or the environment addressed by the proposed rule.

    The impact of air toxics released from vehicles is also an important consideration for risk. The proposed rule will not reduce the risks from the current program but will increase them for at least 5 years and possibly longer. The proposed rule will only reduce emissions relative to no program at all or a very basic program that does not test light duty trucks (that became a very significant part of the fleet in the 1990s and early 2000s due to the increase in SUVs and pick up trucks as family vehicles).

11. The identification of the sources of scientific information used in evaluating the risk and a summary of such information.

    What specifically are the federally-required controls on stationary and mobile sources that are being phased in through 2010 and what are their specific regulatory criteria that will make up for the increase in emissions from the vehicle fleet? It is stated that "Using the existing control strategies already in place and including the additional federally-required controls, the draft results of this modeling indicate that the St. Louis area will likely attain the eight-hour ozone standard by June 2010." (my underlining). Does this mean including the current IM program or the proposed IM program?

12. A description and impact statement of any uncertainties and assumptions made in conducting the analysis on the resulting risk estimate.

    I do not understand why the proposed rule assumptions was not used in the CAMX model rather than the Basic I/M program. Mobile 6 does appear to have higher emission rates for

the Basic Performance Standard that is annual but tests only light duty gas vehicles (no light duty trucks) and does not test for NOx. Do the models weight the input parameters the same? For example, would CAMX weight the annual testing more heavily than Mobile 6? OR do you put the results of Mobile 6 into CAMX? Since the current IM program results in even lower Mobile 6 emission rates in 2009 and 2010, then it would make it more likely that the St. Louis are would attain the eight-hour ozone standard while keeping the air cleaner in the years between mid-2007 and 2010.

13. A description of any significant countervailing risks that may be caused by the proposed rule-making.

    It seems to me that there are a couple of countervailing risks. First, that there is a greater probability that the 8-hour ozone standards will not be met with the proposed program. Second, there will be the increase in air toxics.

14. The identification of at least one, if any, alternative regulatory approaches that will produce comparable human health, public welfare or environmental outcome.

    Please see the response to number 7. above.

Comments via email from the U. S. Environmental Protection Agency, Region 7 - Air Planning & Development, in Kansas City, KS.

1. With respect to the draft rule, paragraph (1)(B)4. should have diesel added at the end since some diesel vehicles are going to be tested.

2. A clarification could be made in Paragraph (1)(B)6. because it isn't exactly clear in the language if 2 or 3 model years (MY) are exempt. For example if the year is 2007, are the 2007, 2006 & 2005 MY vehicles exempt or just 2007 & 2006?

3. Paragraph (3)(E)3. refers to 40 CFR 85.2227 and EPA technical guidance. The CFR section is now reserved, so the state rule should be revised to reflect the current version of Part 85.

4. Subparagraph (3)(F)5.A. appears to contain a typographical error with respect to the vehicle inspection report. It currently reads that the report must be printed by the "inspection", whereas the intent appears to be that the inspector perform the inspection and print a report.

5. Paragraph (3)(G)3. also appears to contain an error, because it states that the inspector must "demonstrate" an inspection. The requirement should probably state that the inspector must demonstrate competency in performing an inspection, or some equivalent language.

6. Subparagraph (3)(I)1. implies that vehicles which pass the gas cap test will pass the emissions inspection. This should be revised to state that the vehicle will pass the gas cap inspection if it meets the performance specification in the subparagraph.

7. Paragraph (3)(K), relating to waivers, and subparagraph (5)(A)1. use the phrase "to the extent practical" in qualifying otherwise mandatory terms. The use of this phrase renders these provisions vague, and the phrase should either be deleted or the rule should identify the circumstances under which it would not be "practical" to perform the otherwise mandatory duty (use of a particular test or test method, verification of repair expenditures) and what alternative should be used if the duty in the rule is not performed (e.g., if a gas cap pressure test is not "practical" for a 1981-1996 model year vehicle, what inspection must the vehicle be subject to). Use of the practicability language might also lead to difficulties in determining the emissions implications of the underlying requirements.

8. Paragraph (3)(K)7. lists states that are deemed to have equivalent emissions inspections to Missouri's for reciprocity waivers. Is it wise to list the states by name when there is a chance that one or more of those states might have a program change?

9. Subparagraph (3)(O)2.B. states, in effect, that inspection station owners must comply with the rule and the "contract". Presumably, the reference is to the contract with the state contractor in charge of implementing the inspection program. While this is more an issue for the inspection stations, unless the station owners are parties to the contract, the provisions of the contract applicable to stations should be stated in the rule, and the owners should be required to meet those requirements rather than requirements of the contract.

10. The subparagraph referenced in the previous comment also states that the license to the inspection station may be suspended by the department or the highway patrol. Missouri should consider whether this authority can be given to the MSHP on the basis of a rule of the Commission. Also, while the MSHP may have separate authority to suspend station licenses (such as stations which also perform safety inspections) that would seem to dependent on highway patrol rules rather than rules of the Commission. In addition, the statute, 643.320, appears to confer this authority on the Commission and not on the highway patrol.

11. Subparagraph (3)(O)5.E. and paragraph (3)(O)6. refers to 40 CFR 85.2234, 2235 and EPA technical guidance. The CFR section is now reserved, so the state rule should be revised to reflect the current version of Part 85.

It was also noticed that some of the language in the current draft is carried over from the existing rule. EPA emphasizes that since the new rule represents a significant change in the stringency of the program, it is important to make the requirements as tight as possible.
For example, the "to the extent practical" language relating to the gas cap check becomes more critical, since apparently the gas cap check is the only test remaining for 1981-96 vehicles in the new program. Similarly, the requirement that inspectors verify qualifying repairs is more important than previously due to the shift to the decentralized, test and repair, program.

Comments via email from the Executive Director of the Alliance of Automotive Service Providers of Missouri.

Comments provide support for the providing a repair facility performance report (RFPR) as proposed in Section 4(C) of the draft rule text but objects to the requirement of having to provide customers with information on the ten closest competitors to the emissions inspection station. Including the contact information to obtain a RFPR on the inspection report would be okay. However, from a business stand point and considering how much time, effort and money is spent on getting a customer into a business, the last thing you would do is present anything about a competing business to your customer.

Comments via email from the President of Networkcar.

See attached document.

networkcar®

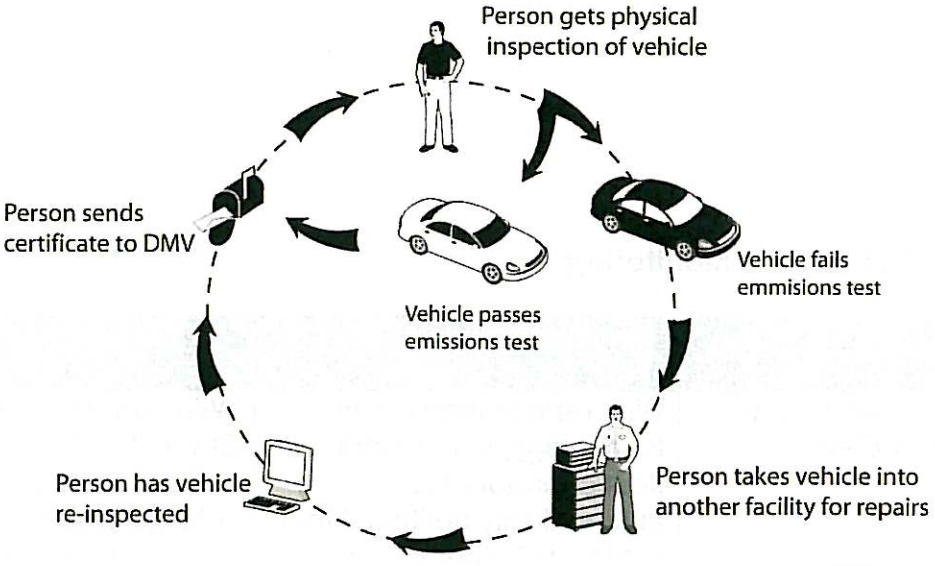
January 8, 2007

RE: **Comments from Networkcar on proposed Rule 10 CSR 10-5.381 On-Board Diagnostics Motor Vehicle Emissions Inspection.**

Thank you for the opportunity to comment on the proposed Vehicle Emissions Inspections Program. We would like to propose an alternative that may not have been considered previously: *In addition to offering a traditional Inspection / Maintenance program, we suggest that vehicle owners and fleet operators have the option to install a device that continuously monitors a vehicle's emissions and then reports that information to the vehicle owner and appropriate state agency if there is a compliance violation.*

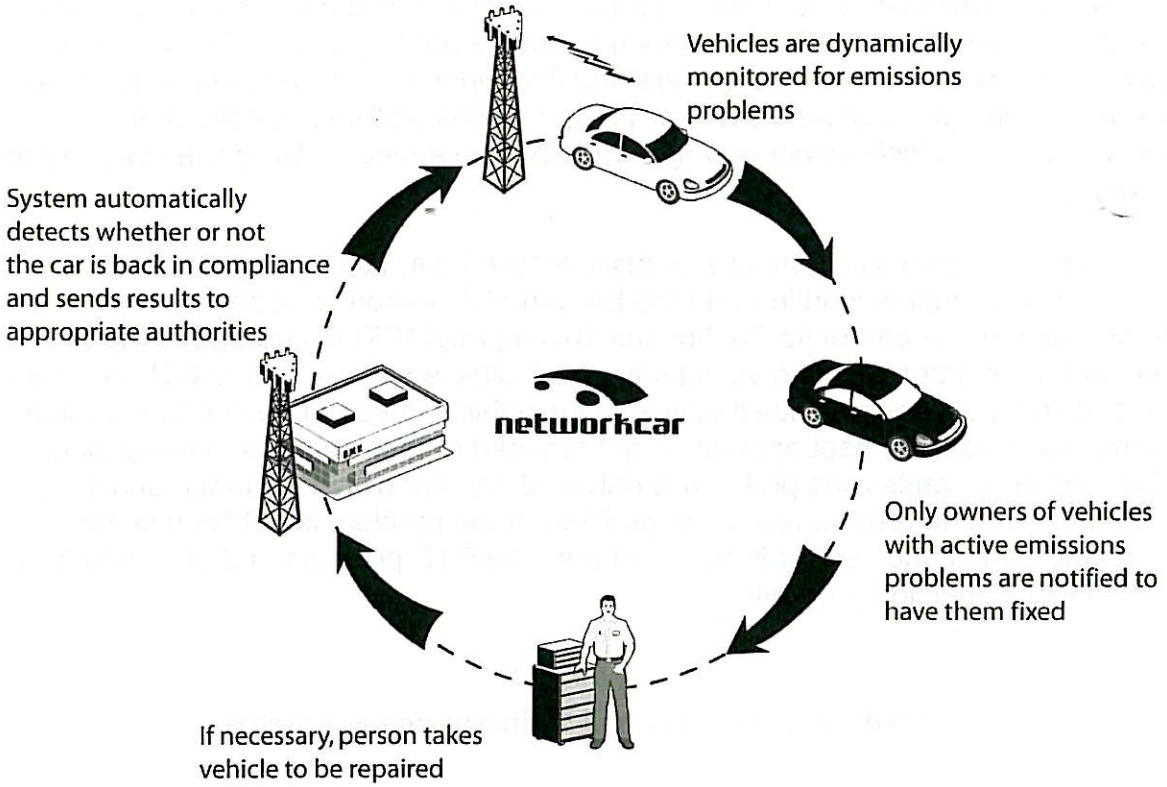
Precedents for remote smog checks do exist. Networkcar, cutting edge telematics company, is a pioneer in working with the Bureau of Automotive Repair (BAR) in the State of California as part of its Continuous Testing Pilot (CTP) program. California car owners and fleet managers can voluntarily enroll eligible vehicles in the CTP program. As long as the monitoring device installed in the vehicle does not detect an emissions problem, the motorist or fleet operator is not required to take vehicles to inspection facilities. When an emissions problem is detected, the car owner or fleet manager is notified and given 45 days to repair the problem. If the problem is not fixed in the allotted time period, the vehicle is removed from the CTP program and placed back into the traditional inspection program.

Traditional Inspection / Maintenance Programs



4510 Executive Dr. Suite 315 San Diego, CA 92121
www.networkcar.com

Continuous Monitoring Program



Benefits of Continuous Monitoring

	For the Vehicle Owner or Fleet Operator	*For the State of MO*
Eliminates Unnecessary Inspections of Clean Vehicles	With remote monitoring technology, car owners and fleet operators are automatically notified if their vehicle fails the emissions test and only need to take	With remote monitoring, the State of MO would receive notification of those vehicles that are polluting and know when the violation occurs. Under the

	their car in for repairs if a problem is detected. In current physical inspection programs, most vehicles pass, making an exception based monitoring and enforcement system a more appropriate and cost effective for consumers and regulators alike.	current program, the State has no data on how long a vehicle may have been polluting excessively.
Is Less Disruptive to the Schedules of Consumers and Fleets	Vehicle owners do not need to take time out of their day to take a vehicle to an inspection facility and wait for the test. The tests are also often perceived as damaging to the car, which makes some vehicle owners wary of the tests. Fleet owners benefit by not having to remove an asset from the road.	The State of MO will not need to design a program that fits into the busy schedules for consumers and fleets. In addition, the State will not need to educate consumers that the traditional I/M programs do not damage the vehicle.
Immediate Problem Identification Decreases Pollution	This results in cleaner air for everyone as problems are detected and repaired faster than under traditional I/M Programs.	Most inspection programs require the test to be completed every two or three years. If a vehicle develops a problem any time during this period, it continues to be driven in a polluting condition since the driver and authorities are not aware of the problem. With remote monitoring, however, the driver is notified immediately to make repairs thus decreasing pollution.
Eliminates Need for Follow-Up Inspection	After repairs are completed, there is no need for a second physical inspection since the system dynamically detects	By eliminating the need for follow-up inspections, the process is simplified for the State.

	whether or not the vehicle is back in compliance. This streamlines the process for car owners and fleet operators.	
Immediate Repairs Less Costly In Terms of Time and Money than Deferred Repairs	If a car owner unknowingly drives for several years with an undetected emissions problem, the problem could impact other vehicle subsystems leading to larger repair bills. Also, an emissions problem that is not promptly detected could lead to hidden costs like higher fuel expenditures.	From a public relations standpoint, the State of MO benefits by helping consumers and fleets identify emissions problems before a costly repair is required.
No Conflict of Interest	There is no conflict of interest in implementing this system since it is independent of the vehicle manufacturer, inspection facilities and repair facilities. The vehicle is communicating the same emissions status as would be discovered through a physical inspection.	With remote monitoring, the State of MO would receive data from an uninterested, third party.
Voluntary Participation Alleviates Privacy Issues	Consumers and fleet operators benefit by having a choice in how they comply with existing regulations.	By making the program voluntary, for the general population, privacy issues can be addressed. For gross polluters, such as taxis or high mileage vehicles, mandatory continuous monitoring and repair may be more appropriate.
Clearly Communicates the Nature of the Problem	In contrast to the in-vehicle warning icon and light that causes much confusion to drivers, the continuous monitoring system has the advantage of using e-mails and a website to clearly	The State of MO has the ability to capture in real-time data about what types of emissions problems are occurring in the State.

	explain the nature of the problem. These messages are easy to modify for purposes such as official warning notifications.	
Tamper and Fraud Resistant	Remote monitoring devices can be installed unobtrusively in vehicles.	The device is installed behind the OBD-II port and is hidden from view under the dash so that it would be difficult to locate or remove. The system remotely detects if a unit has been unplugged. Specifically, by examining the number of resets and successful data reads it would be possible to determine if tampering had occurred. The car itself notifies the oversight agency of its status, not an inspection facility operator who might be tempted to falsify the result to receive a fee for a second inspection.
Easy Integration with Existing I/M Program Administration Systems	---	The dynamically collected data can be easily accessed by agencies through use of Web Services and XML technologies. The highly sophisticated database design gives agencies flexibility to design programs customized to their needs. This streamlines administrative operations for I/M programs.
Mechanism to Verify Vehicles Driven In Appropriate Regions	---	The State of MO could offer a device that tracks a vehicle's location and reports that at the time of a problem. However, this option may not be widely

		accepted by consumers and fleet operators.
Monitor Based on Mileage Threshold	---	With remote monitoring, the vehicle mileage could be provided at the time of an emissions violation.

Thank you for asking for public comment proposed Rule 10 CSR 10-5.381. We would welcome the opportunity to provide additional information.

Best regards,

Paul Washicko
President
Networkcar

Attachments:

- About Networkcar
- Product Overview and Overview of Networkcar's Involvement with California's CTP Program

About Networkcar

Networkcar (www.networkcar.com) is the leading provider of around-the-clock services for remotely monitoring the performance, location and security of fleet and consumer vehicles. Networkcar's wireless fleet management system, Networkfleet merges patented remote diagnostic systems with GPS-based Automatic Vehicle Location (AVL) technology. Fleet operators and car owners have access to vehicle location information online, Smart Roadside Assistance, stolen vehicle recovery services and vehicle performance updates. Networkcar helps fleet operators reduce operating costs and improve productivity by providing detailed online information ranging from stop reports to fuel efficiency trend data. With Networkcar, fleets and car owners can increase safety and security, save time and reduce costs with preventive maintenance and early problem detection. The company received a 2004 Technology Leadership Award from Frost and Sullivan for Remote Vehicle Diagnostics (RVD) and a 2004 Telematics Update Magazine Award for Best Commercial Vehicle Solution. The company is headquartered in San Diego, CA.

An Overview of Networkcar's Products & Networkcar's Involvement with the Continuous Testing Pilot Program in California

Submitted by:
Networkcar
4510 Executive Dr. Suite 315
San Diego, CA 92121

January 8, 2007

Table of Contents

1. Networkcar Background

1.1 History of the Organization

Founded in 1999, Networkcar (www.networkcar.com) is a leading provider of services for remotely monitoring the performance and location of fleet and consumer vehicles. Networkcar's wireless in-vehicle technology merges patented remote diagnostic systems with GPS-based Automatic Vehicle Location technology. The company recently received the 2006 American Business Awards for Most Innovative Company and received a 2005 Telematics Update Magazine Award for Best Commercial Vehicle Solution. Networkcar was also awarded a GSA Federal Supply Schedule Contract in 2005. The company is headquartered in San Diego, CA.

2. About the Product

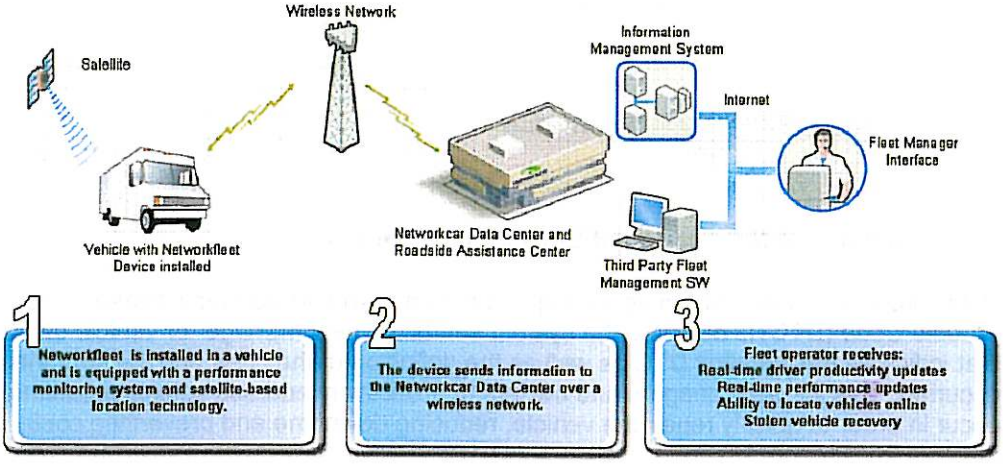
2.1 Wireless Vehicle Management System for Fleets

Networkcar offers the first truly integrated location and performance monitoring system for vehicle management. The Networkfleet system collects and organizes detailed automotive information directly from the vehicle's engine computer and location-based information from a global positioning system. Maintenance and operation information are transmitted wirelessly to an information center where it is made available to fleets and car owners in the form of immediate e-mail alerts, summary e-mail reports or Web pages.

The features of Networkcar's solution include:

- Automatic Vehicle Location and Routing – Locate a vehicle 24 hours a day, 7 days a week. Location is updated every 2 minutes
- Remote Diagnostics – Get notified if one of your vehicles reports a diagnostic trouble code or is due for normal maintenance
- Safety and Security – Receive nationwide stolen vehicle recovery and roadside assistance for light vehicles at no additional cost
- Operating Statistics – Get quick access to critical information about every aspect of your fleet including MPG, speed, idle time and mileage
- Maintenance History – Keep track of your vehicle's service records online; which will help you receive a higher resale value for your fleet vehicles.
- Reports and Alerting – Generate reports by vehicle, group of vehicles, and entire fleet. (Commercial product only)

How it works



2.2 Wireless Vehicle Management for Consumers

Networkcar's consumer product is similar to its commercial one. However, the level of detail and functionality is limited.

2.3 About the Website

Unlike other vehicle tracking systems, Networkcar's product is entirely web-based. No software is required to be installed and updates are completed without user interaction. Fleet managers and vehicle owners can simply log-on to their secure website anytime, anywhere.

2.4 About the Device

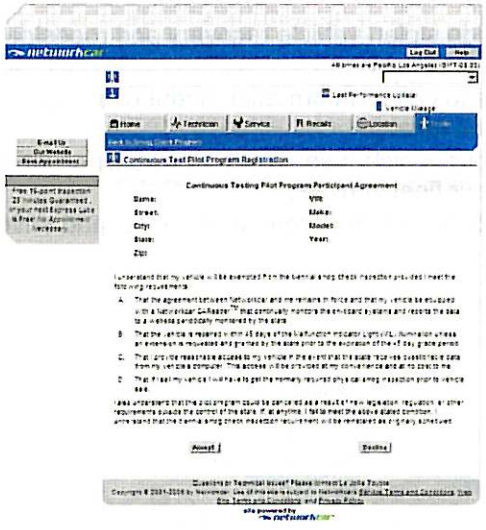
The CAReader is a small "plug and play" device the size of a PDA. Installation is quick and easy as it does not require wire splicing. Networkcar's product plugs directly into a vehicle's OBD-II port, but does not prevent scan tools from plugging into the vehicle. The device is in regular communication with the vehicle and sends the time-stamped collected data (MIL, DTCs, vehicle identifier) wirelessly. The data is then available via a password protected website.

3. Networkcar's Partnership with the Bureau of Automotive Repair in California

3.1 Enrolling in the Program

Networkcar allows vehicle owners and fleet managers to register for the program. Consumers are able to register online if their vehicle is in compliance. When fleets enroll, Networkcar checks that the vehicles are in compliance before submitting the vehicle list to the DMV.

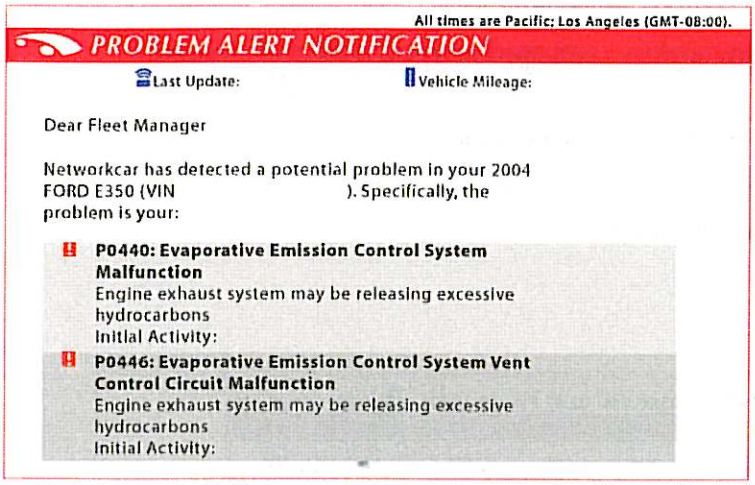
Application Screen Shot: Online Registration in the Program



3.2 Automatic Notification of Emissions Problems

Networkcar provides event-driven exception-based reporting via email. When a Diagnostic Trouble Code (DTC) is detected the system sends the fleet manager or vehicle owner an e-mail that indicates the five-digit DTC as well as the definition of the code and the time the event occurred. This allows managers and owners to proactively address vehicle problems when they occur in order to quickly repair the vehicle, reducing downtime and preventing costly repairs in the future.

Application Screen Shot: Emailed Problem Alert Notification



All times are Pacific: Los Angeles (GMT-08:00).

PROBLEM ALERT NOTIFICATION

Last Update: Vehicle Mileage:

Dear Fleet Manager

Networkcar has detected a potential problem in your 2004 FORD E350 (VIN). Specifically, the problem is your:

P0440: Evaporative Emission Control System Malfunction
Engine exhaust system may be releasing excessive hydrocarbons
Initial Activity:

P0446: Evaporative Emission Control System Vent Control Circuit Malfunction
Engine exhaust system may be releasing excessive hydrocarbons
Initial Activity:

3.3 Procedure When A Problem is Detected

Networkcar also sends letters via USPS to participants who are in violation of the program. If the vehicle is not fixed in a timely fashion, Networkcar removes the vehicle from the program and notifies BAR of the change.

4. Additional Related Functionality Available to Fleet Managers / Operators

For fleets, Networkcar offers additional functionality for fleet managers to pro-actively monitor vehicle emissions, fuel utilization, etc.

4.1 Remote Emissions Report

Networkcar enables fleets with OBD-II compliant vehicles to view emissions data (based on the MIL light) within the Networkfleet application. Fleet managers may also utilize the All Alerts Report which will identify any vehicles that have emissions diagnostic trouble codes. Networkcar currently operates a program in conjunction with the State of California for remote emissions testing (remote smog check); however this type of program has not been implemented in any other states yet.

Application Screen Shot: All Alerts Report

Vehicle Label	Year Model	Initial Read	Last Read			Alert
						292500 MILE SERVICE (Other)
					*	P0442 (Emissions)
						333750 MILE SERVICE (Other)
					*	P0301 (Emissions)
					*	P0442 (Emissions)
						P0174 (Engine / Fuel)
						165000 MILE SERVICE (Other)
					*	P0442 (Emissions)
						U1039 (Other)
						101250 MILE SERVICE (Other)

An asterisk (*) before an Alert Name indicates a pending problem.

Application Screen Shot: Remote Emissions Data

Smog Status for
1999 CHEVROLET EXPRESS (VIN)

Here is an approximate status of this vehicle's emissions system.

Since each state has its own rules regarding emissions compliance, this vehicle may not pass in your area.

Found 78 entries with information on this vehicle.

Next

Monitored Parameter	03:45 PM	03:45 PM	03:00 PM	02:57 PM	02:14 PM	12:20 PM	11:28 AM
MIL Light	off	off	off	off	off	off	off
Active DTCs (Emiss.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A/C System Refrigerant	nsup	nsup	nsup	nsup	nsup	nsup	nsup
Heated Catalyst	nsup	nsup	nsup	nsup	nsup	nsup	nsup
Catalyst	comp	comp	comp	comp	comp	comp	comp
Comprehensive Component	comp	comp	comp	comp	comp	comp	comp
EGR System	comp	comp	comp	comp	comp	comp	comp
Evaporative System	incomp	incomp	incomp	incomp	incomp	incomp	incomp
Fuel System	comp	comp	comp	comp	comp	comp	comp
Misfire	comp	comp	comp	comp	comp	comp	comp
Oxygen Sensor Heater	comp	comp	comp	comp	comp	comp	comp
Oxygen Sensor	comp	comp	comp	comp	comp	comp	comp
Secondary Air System	nsup	nsup	nsup	nsup	nsup	nsup	nsup
Emissions Status	☑	☑	☑	☑	☑	☑	☑

Smog Report Legend

4.2 Fuel Efficiency Report of MPG for All Vehicles

With Networkfleet's Fuel Usage and MPG Report, fleet managers can view and compare the fuel usage and MPG of each vehicle against other vehicles in their fleet. This report is used to monitor the approximate amount of fuel consumed by each vehicle and to spot vehicles that have exceeded a user-defined threshold for fuel usage during a given time period. Fleet managers can also easily reconcile gallons consumed with fuel card expenditures to monitor for abuse.

Application Screen Shot: Fuel Usage and MPG Report

Fuel Usage and MPG Report

								Actual Gallons Consumed Compared to Gallons Threshold			Actual MPG Results Compared to MPG Threshold				
Vehicle Label	VIN	Year Make Model	Starting Mileage	Ending Mileage	Distance Traveled (Miles)	Vehicle Fuel Cost ($)	Gallons Consumed	Gallons Difference	Savings Based on Gallons ($)	MPG	MPG Difference	Gallons Saved	Savings Based on MPG ($)	Vehicle Begin Date	Vehicle End Date
		2000 FORD F150	233,161	233,685	524	91.57	30.52	(49.48)	148.43	17.2	(78)	(0.56)	(28.69)	10/24/05 12:20 PM	10/27/05 09:17 PM
		1999 FORD E350	112,468	112,518	50	8.90	2.97	(77.03)	231.10	16.9	(81)	(0.07)	(2.90)	10/24/05 01:59 PM	10/27/05 04:02 AM

4.3 Idle Time Reports for All Vehicles

Networkfleet provides two reports to help fleet managers monitor vehicle idling and reduce fuel consumption. The Networkfleet Idle Time report allows fleet managers to view the number of hours of idle time for each of their vehicles. Fleet managers can also create an idle time threshold and identify vehicles that consistently exceed this limit. The Networkfleet Stop Detail and Idle Time report provides a snapshot of the exact time and location that vehicles sat idle for a particular time period. These reports enable you to pinpoint drivers that are idling excessively and have the potential to operate their vehicles more efficiently to help you save money.

Application Screen Shot: Idle Time Report

Report Overview	
Vehicle Group	
Number of Vehicles in Group	18
Number of Vehicles Shown	13
Percentage of Group Shown	72%
Average Idle Time - %	26%
Average Idle Time - Hours	1.1
Total Idle Time - Hours	14.7
Total Operating Hours	73.9
Average Speed	67
Total Miles Driven	2,695
Average Miles Driven per Day	1,348
Report Run Date/Time	06/10/06 01:36 PM
Report Time Period	06/05/06 12:00 AM - 06/07/06 12:00 AM
Export Data — Export this report data to a Microsoft Excel spreadsheet.	
Printer Friendly — View this report in a printable format.	

Idle Time Report

Vehicle Label	VIN	Year Make Model	Starting Mileage	Ending Mileage	Distance Traveled (Miles)	% of the Time Vehicle Was Idling	Idle Hours	Drive Hours	Total Operating Hours	Max Speed Range	Average MPH	Vehicle Begin Date	Vehicle End Date
		2001 LINCOLN TOWN CAR	111011	111087	76	39%	1.9	3.0	4.9	60.0-80.0	25	06/05/06 08:01 PM	06/06/06 04:24 PM
		2002 LINCOLN TOWN CAR	158499	158780	281	15%	1.2	6.6	7.8	70.0-80.0	43	06/05/06 04:16 AM	06/06/06 03:44 AM
		2001 LINCOLN TOWN CAR	14412	14413	1	80%	8.0	0.0	0.0	0.0-10.0	346	06/05/06 07:51 AM	06/06/06 01:13 PM
		2003 LINCOLN TOWN CAR	149852	150155	303	19%	1.5	6.3	7.7	70.0-80.0	48	06/05/06 03:57 AM	06/06/06 03:48 AM
		2004 LINCOLN TOWN CAR	65135	65435	300	20%	1.7	6.6	8.3	80.0-90.0	46	06/05/06 03:33 AM	06/06/06 03:47 AM
		2003 LINCOLN TOWN CAR	123312	123547	235	22%	1.5	5.4	7.0	70.0-80.0	43	06/05/06 06:12 PM	06/06/06 05:57 PM
		2003 LINCOLN TOWN CAR	109895	110105	210	23%	1.5	4.9	6.4	80.0-90.0	43	06/05/06 11:27 AM	06/06/06 01:04 PM

Application Screen Shot: Stop Detail and Idle Time Report

Report Overview	
Vehicle	
Min Idle Stop Duration	5 Minutes
Total Time Interval	3 Days
Report Time Period	06/05/06 09:00 AM - 06/08/06 09:00 AM
Export Data	Export this report to a Microsoft Excel spreadsheet.
Printer Friendly	View this report in a printable format.

Section 1: Stop Summary for from 06/05/06 09:00 AM to 06/08/06 09:00 AM		
Stop Type	Total Stop Count	Total Stop Time
Hard Stops	48	02:08:15
Idle Stops	0	N/A
Total Stops	48	02:08:15

Section 3: Trip Detail for 9512 from 06/05/06 09:00 AM to 06/08/06 09:00 AM

Trip #	Trip Begin Time	Trip Duration		Stop Begin Time	Stop Duration		Trip Distance*	Total Distance*	Location Address	Map Plot	Max Speed (MPH)
		Days : Hours : Minutes	Minutes		Days : Hours : Minutes	Minutes					
1	06/05/06 09:00 AM	00:00:11	11	06/05/06 09:11 AM	00:00:04	4	5.53 miles	5.53 miles			64
2	06/05/06 09:15 AM	00:01:05	65	06/05/06 10:20 AM	00:00:22	22	58.05 miles	63.58 miles			72
3	06/05/06 10:42 AM	00:00:04	4	06/05/06 10:45 AM	00:00:16	16	0.34 miles	63.92 miles			39
4	06/05/06 11:01 AM	00:00:15	15	06/05/06 11:16 AM	00:00:10	10	3.84 miles	67.77 miles			46